UNIVERSITY OF CALIFORNIA

COLLEGE OF AGRICULTURE

BERKELEY

HILGARD HALL

MAIN FAÇADE OF HILGARD HALL

A GIFT OF THE CITIZENS OF CALIFORNIA

DEDICATED SATURDAY, OCTOBER THE THIRTEENTH

NINETEEN HUNDRED AND SEVENTEEN

A DETAIL FROM THE MAIN ENTRANCE

HILGARD HALL

ON a slight eminence facing the Golden Gate stands Hilgard Hall, a fitting monument to the memory of the man whose name it bears and whose indefatigable energy and wise forethought made its realization possible, Eugene Woldemar Hilgard. Called to California early in 1875 Professor Hilgard established the first agricultural experiment station in the United States at the University of California. Serving for thirty years as Director and for more than forty years as professor in the University, his contributions to agricultural science and his influence on the development of agricultural pedagogy can hardly be overestimated. The firm stand taken by him with reference to the dignity and pedagogical value of agricultural science at this early period, when so many institutions, now great, were in their formative periods, has exerted a profound influence upon the development of agricultural education. Indeed, the high place modern scientific agriculture holds is in no small way due to the efforts of Professor Hilgard, and it is not too much to say that the splendid facilities possessed by the College of Agriculture of the University of California, represented in our two new buildings, are the direct result of his foundation work done under most trying conditions in the early years of the life of the institution.

Hilgard Hall is a gift of the people of California, the funds for its erection being appropriated by the Regents from the $1,800,000 bond issue provided by the initiative vote of the people in 1914. It cost $350,000 and contains equipment to the value of $25,000 additional. It was erected according to schedule, being commenced August 1, 1916, and occupied early in August, 1917.

Hilgard Hall comprises the second of the three buildings which will complete the agricultural quadrangle ac-

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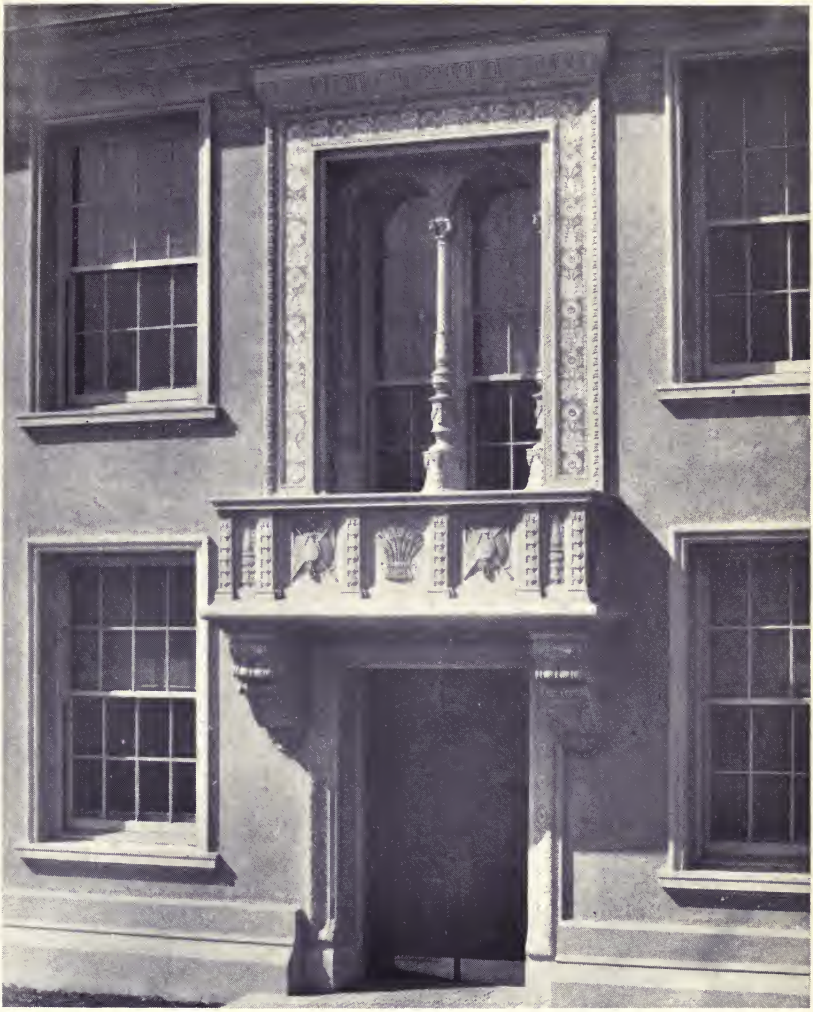
cording to the Phoebe Hearst architectural plan for the development of the University. The idea underlying the quadrangle composed of the agricultural buildings, as developed by the architect, Professor John Galen Howard, was taken from the old Tuscan farm with its inner court of activity. The two present buildings complete half of the court. The desire for a court, coupled with the existing contours have given to Hilgard Hall a special form, the building having four distinct turnings. The principal façade, about 180 feet in length, faces the west and is treated with a colonnade of ten massive pillars, surmounted by an attic wall on which occurs the following inscription: "To Rescue for Human Society the Native Values of Rural Life," typifying the aim of the institution.

The building is constructed of reinforced concrete with a light gray plaster finish, and is approximately sixty feet in width by three hundred feet in length. It is roofed in tile and in arrangement and appearance is of the same general type as all the newer buildings on the Campus, having three main floors and a basement floor. It contains 111 rooms, of which ninety-five are devoted to offices, classrooms, and laboratories, the remainder being given over to machinery, lavatories, and janitors' quarters.

The main entrance is by the west through a door decorated by a conventionalized California poppy and carrying the agricultural symbols of plenty, the basket of fruit and the overflowing cornucopia. A unique feature of the building is the exterior decoration in colors obtained by the use of Sgraffito work. The pilasters terminating the colonnade and at all the corners of the building, the main frieze, as well as certain panels and wall surfaces are decorated with this work. Sgraffito is an Italian method of decoration, giving a cameo effect by means of sculptured colored layers of plaster one over the other. The ornamental design in general is taken from symbolic forms of agricultural life, such as the sheaf of wheat, the flail and basket, the bull's head, and fruit and flowers.



DECORATIVE DESIGN, NORTH ENTRANCE

The building contains four unassigned general lecture rooms, two on each of the first and second floors, with seating accommodations for 428 students at one time. In addition it contains a Conversation Room (102) and two rooms for the use of student organizations (328, 329). A unique feature of the building is the two garden courts situated on the top floor immediately behind the attic wall. These are provided with window seats and when decorated with hanging vines and potted plants will be both useful and ornamental additions to the top floor. From these courts access can be had to the roof, from which there is a very fine view.

The rest of the building is divided among the seven following divisions: Agronomy (dealing with field and forage crops, crop production, and farm management), Citriculture (covering all phases of citrus, semi-tropical, and tropical fruit production), Forestry (offering complete courses in general forestry, forest utilization, silviculture, mensuration, technology, and forest management), Genetics (dealing with the application of the principles of breeding to plants and animals), Pomology (offering courses covering all phases of the production of deciduous fruits, small fruits, and nuts), Soil Technology (dealing with methods of soil management, soil mapping, physical analysis, and soil physics), and Viticulture (covering the subjects of grape growing, olive growing, winemaking, food preservation, and fermentation).

The third, or top floor is devoted entirely to offices with a few exceptions, which will be noted elsewhere. In addition, a certain number of offices are situated in individual research laboratories in various parts of the building. There are thirty-three offices on the top floor.

The basement, first, and second floors are devoted to lecture rooms, classrooms, and laboratories, the basement being divided between the divisions of Agronomy, Citriculture, Forestry, Pomology, and Soil Technology. The north half of the first floor is occupied by Forestry and the south

half by Agronomy. The second floor is utilized by Pomology, Citriculture, Viticulture, and Genetics.

AGRONOMY

The administrative officers (307–310) are at the north end of the top floor. In addition there is a Seed Laboratory conducted in co-operation with the U. S. Department of Agriculture (311). Other offices of the division are located in connection with private research laboratories. The laboratories and classrooms occupied by this division comprise a large general Student Laboratory accommodating fifty-six students (116), a commodious Preparation Room (118), Seed Collection and Herbarium Rooms (119, 120), a Research Laboratory and Office (122), and a Seminar Room (124). Located on the basement floor immediately beneath the Agronomy quarters is a large Receiving Room (23) for the storage and treatment of bulky material, and a Fumigating Room (23), hermetically sealed and so equipped with fans and blowers that fumigation even with the most poisonous gases can be done with safety.

Special features of the equipment possessed by the Agronomy Division are the fine seed collection (119), the herbarium of several thousand specimens of crop plants (120), an excellent collection of fibers and fiber crops (116), and the full and complete set of standards or guides used in systematic work (116).

The seed collection is considered one of the best, if not the best, in the United States. A set of standards to which to refer in describing field and forage crops is of great value and the collection here is very complete and represents an exhaustive study of many hundreds of varieties.

CITRICULTURE

The officers of this Division (338–40) are located on the west side of the top floor, opening on the south garden court. In the main office is located a very complete set of photographs concerning citrus and semi-tropical fruits.

The laboratories and class rooms are situated on the second floor and consist of a Research Laboratory (214) and a large general Student Laboratory (215). On the basement floor, adjoining the Agronomy Room, is a spacious Workroom (21). Here is displayed a large collection of orchard heaters and provision is made for the establishment of a small olive processing works. In the student laboratory is a small hydraulic press which is used to illustrate the process of making olive oil. Here also is a good herbarium of specimens of citrus and semi-tropical fruits and foliage.

The research laboratory is devoted to studies on the application of the principles of plant physiology to the problems of citrus and semi-tropical fruit production, a subject as yet little investigated, but one of fundamental importance.

FORESTRY

This Division occupies six offices (301–306), facing the west and opening on the north garden court. The north half of the first floor is given over to forestry and contains a fine large General Laboratory for student work (115), as well as research laboratories for each of the five departments of forestry: Technology, Forest Management, Mensuration, Silviculture, and Utilization. In addition, there is a spacious Filing Room (103), where over 10,000 lantern and microscope slides are kept, a large Logging Room (104), an Instrument Room (109), a Draughting Room (110), provided with a dark and blue-print room (111), a specially equipped Herbarium Room (113), and a large Storage Room (114). On the basement floor there is a Machinery and Wood Demonstration Room, where will be located a circular saw and planers for student work (4), and a Wood Distillation Laboratory (3).

Embracing as it does such a broad field, the Division of Forestry possesses a number of features of special interest. Among these, one of the most interesting is the Logging Room (104). Here are to be set up demonstrations of the

various systems of logging with complete models in miniature. Also there will be models, miniature in some cases, and natural size in others, of the various kinds of equipment, such as locomotives, saws, and other logging apparatus.

Situated in the Wood Technology Room (112) is the nucleus of a very fine collection of woods from different countries which is to be enlarged as time goes on. The display of lumber grades (4) when completed will be a unique feature, as will also be the exhibit of the widest boards possible to cut from the most important timber trees of the world. The exhibit in special display cabinets of the hundred most important timber species of the United States, including the seed, seedling, mature foliage, and fruit, the bark, and the lumber, is something unique to this Division (113). Another feature of considerable interest is the collection of reconnaisance work instruments (109), which is very complete. All of the office and laboratory furnishings of this Division were designed by members of the staff.

GENETICS

The offices of this Division (312–316) deserve special mention, for they represent a very ingenious combination of private research laboratory and office made practically a necessity by the nature of the work done by the Division. They also contain a small herbarium, a seed room, and a fireproof vault for storing breeding records.

Situated immediately under the offices, on the second floor, are the laboratories and classrooms occupied by Genetics. These consist of a large General Laboratory for Sophomore classes accommodating fifty-six students at one sitting, equipped with student incubators for work with live insects, individual lockers, and an excellent set of permanent charts (209), a commodious Preparation Room adjoining the laboratory (208), a well-equipped Undergraduate Laboratory (207), and a Graduate Research Laboratory equipped with incubators and other apparatus (205)

and provided with a Computing Room (206) for biometrical and statistical work.

POMOLOGY

The offices occupied by this Division (330–334) are situated at the south end of the top floor.

The classrooms and laboratories are divided between the basement and second floors. On the latter there is a large general Student Laboratory (210), a spacious Collection Room (211), where are to be exhibited specimens of various fruit packages, and which will also contain the herbarium, a Research Laboratory (212), and a Seminar or Round-table Room for students (213), where informal discussion groups can be held.

The entire northeast quarter of the basement floor is occupied by the Fruit Handling and Packing Laboratory (14) and the Cold Storage and Refrigeration Plant (5–13). The latter, while designed especially for the experimental study of cold storage problems by the Division of Pomology, is available to all the divisions. It consists of a Motor and Machinery Room (11, 12, 13), where are located the refrigerating machinery of the most modern kind, expansion coils and a dehumidifier, and six cold storage chambers, of which two are insulating corridors for general storage purposes (7, 9), and four are small chambers maintained at a constant temperature and humidity, at 20 degrees (6), 24 degrees (8), 26 degrees (5), and 32 degrees (10). With these splendid facilities, it is hoped that important fundamental investigations on the keeping of fruits in cold storage may be carried on.

Another feature of special interest is the Fruit Handling and Packing Laboratory, adjoining the Cold Storage Plant. Here are located representative forms of fruit handling apparatus, in the nature of a sizer, washing and brushing machine, sorting and grading table, box-making machine, box press, trucks, and others. Here also is located a sulphuring box and a fruit-drying oven.

An interesting exhibit possessed by this Division is the collection of plaster casts, wax models, and water color

paintings of the most important varieties of apples grown in this state, begun by the late Professor Stubenrauch. This was designed to show the variation under different climatic conditions, and constitutes a very valuable collection.

SOIL TECHNOLOGY

The offices of this Division (317–322) are located on the east side of the top floor and contain a special feature in the shape of a draughting room and blue-print room.

The laboratories and classrooms are situated on the basement floor, occupying the southwest quarter. They comprise two large Sophomore laboratories, accommodations for approximately 100 students each (31, 33), a laboratory for advanced students (26), a Balance Room (27), a Centrifuge Room (25), where are located two centrifuges, one for soil analysis, and one for moisture equivalent determinations, two Storage and supply Rooms (30, 32), an Office (28), and an individual Research Laboratory (24).

This division has a collection of soil types from all localities in this state which have been mapped in conjunction with the United States Bureau of Soils. A special feature of the equipment is the arrangement of the laboratories. Each desk is a complete unit with balances, ovens, sinks, cabinets, and everything in the way of apparatus needed in the study of the principles of soil management.

VITICULTURE

The offices of this Division (335–337) adjoin those of the Division of Citriculture and open on the South Garden Court. The laboratories and classrooms are located on the second floor and comprise a Food Preservation Laboratory (202), fully equipped with canning and preserving machinery, such as vacuum condensers, presses, and other apparatus necessary for the investigation of the preservation of fruits, vegetables, and other foods, a Microbiological Research Laboratory (203), and a general Zymology Laboratory (204).

Nothing has been spared in the way of equipment to make these laboratories as complete as possible. A special feature is the Food Preservation Laboratory, which is de-

signed for testing on a semi-industrial scale the results obtained in the Research Laboratory. The Zymology Laboratory is especially well equipped for research in enology, and food preservation, containing a scientifically constructed aseptic inoculating room for microbiological work, large built-in incubators for culture work with microorganism, specially fitted hoods with forced draught, and other features. The field of food preservation is an especially important one at the present time and presents many problems for research. This Division is engaged in establishing the principles underlying food preservation and their economic application.

A PANEL FROM THE MAIN FAÇADE